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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Preparation for International Telecommunication Union World Radio Communication Conferences	)	IC Docket No. 94-31

COMMENTS OF
GE AMERICAN COMMUNICATIONS, INC.

GE American Communications, Inc. ("GE Americom") hereby comments upon the Commission's Notice of Inquiry in the above-referenced matter.[1] The subject of the NOI is the position the U.S. delegation should take with respect to the agenda items proposed by the 1993 World Radiocommunication Conference to be addressed at the 1995 Conference ("WRC-95"). GE Americom's concern in these proceedings is limited to use of frequency bands for Mobile Satellite Service ("MSS") feeder links.

GE Americom is a pioneer in domestic satellite operations, with a fleet of two in-orbit Ku-band satellites, one C/Ku-band hybrid satellite and five in-orbit C-band satellites. In addition, GE Americom is in the process of constructing another C/Ku-band hybrid satellite and has applied, in File Nos. 18-DSS-P/LA-94 et al., for authorization to construct and launch two additional Ku-band satellites.[2]

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[1] Order FCC 94-96 (released May 5, 1994), 59 Fed. Reg. 25873 ("NOI").

[2] GE Americom is joint licensee, with GTE Spacenet, of a third Ku-band satellite, and GTE Spacenet has pending before the Commission a request for approval to transfer the licenses of its satellites to GE Americom.

GE Americom's fleet, as well as the fleets of other Fixed Satellite Service ("FSS") operators, use the entire spectrum in the 3700-4200 MHz and the 11.7-12.2 GHz frequency bands, for space-to-earth communications in the C-band and Ku-bands, respectively; and the 5925-6425 MHz and the 14.0-14.5 GHz frequency bands for earth-to-space communications in these two services. GE Americom therefore has a vital interest in assuring that sufficient spectrum remains available to provide, with a minimum of interference, C-band and Ku-band FSS services, which, inter alia, bring video and audio programming to the broadcasting industry, millions of cabled households, and millions of households with backyard satellite antennas, and which provide important data and other services to private users and agencies of the U.S. government.

Sharing of either the C-band or Ku-band between non-geostationary Mobile Satellite Services ("MSS") and FSS services would be virtually impossible without inflicting harmful interference. There is only limited amount of spectrum in both the C- and Ku-bands, and this is efficiently used and re-used by scores of FSS satellites. Sharing of a portion of the 20-30 GHz

band now allocated to FSS satellites is under current study,[3] and the Commission should not pre-empt the negotiated rulemaking by deciding the question of sharing at an international conference.

Sharing of the C and Ku-Band Frequencies Used by FSS Satellites Is Not Operationally Feasible

GE Americom agrees with the Commission's tentative conclusion that: "Current C and Ku-band FSS spectrum appears too congested to support future non-GSO MSS feeder link requirements." NOI at ¶ 22 (footnote omitted). Ordinarily, for FSS satellites to share these frequencies with non-geostationary MSS satellites would cause unacceptable interference whenever a non-geostationary MSS satellite would transit between a feeder-link source and a satellite in the geosynchronous arc. With the number of low-earth orbiting satellites proposed by some MSS proponents, this would be almost a continuous process.

GE Americom is aware of the fact that the Commission believes RR. No. 2613 cannot be invoked to terminate MSS feeder link fixed operations in the case of interference with FSS operations. This does not mean, however, that feeder link

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[3] By Public Notice dated July 12, 1994 (Mimeo 43845), the Commission announced the establishment of a negotiated rulemaking procedure to address technical rules for the use of the 27.5 - 29.5 GHz. See also Rulemaking to Amend Part 1 and Part 21 of the Commission's Rules the 27.5 - 29.5 Frequency Band and to Establish Rules and Policies for the Multipoint Distribution Service, 9 FCC Rcd 1394 (1994).

operations of MSS satellites should be allowed to share the Ku- and C- band FSS frequencies on a co-primary basis. The Commission has wisely not made any proposal for sharing of these FSS bands and should therefore not advocate sharing of the C and Ku-bands before WRC-95 in the absence of careful study and comments by the parties as to whether such sharing is operationally feasible. In addition, GE Americom believes that the Commission should also examine this issue in connection with its decision in Amendment of Section 2.106 of the Commission's Rules to Upgrade to Primary Status the Secondary Mobile-Satellite Service Allocation at 19.7-20.2 GHz and 29.5-30.0 GHz, ___ FCC Rcd _____ (Report No. DC-2164, June 15, 1994), which gave MSS providers an additional 3 GHz of spectrum.

In the instant proceeding, the Commission has put into issue whether "suitable technical arrangements can be devised for sharing of FSS spectrum between non-GSO and GSO FSS feeder link operations." The Report of the MSS Above 1 GHz Rulemaking Committee in CC Docket No. 92-165 (April 6, 1993) discusses several means of frequency sharing techniques. GE Americom has evaluated this report and believes that none of the means discussed, short of band segmentation, could be successfully applied to the the C and Ku FSS bands.[4] Because the C- and Ku-

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[4] The frequency sharing discussed in ET Docket 92-191, such as electronically-hopped spot beams and onboard digital switches are not feasible in the near future for FSS satellites in the C- or Ku-band, dozens of which are already operating in orbit and still others of which are in advanced stages of construction.

bandwidths allocated to FSS services are completely used, band segmentation is not a practical means of sharing.

GE Americom is therefore not optimistic that there is any way that MSS and FSS services could successfully co-exist in the current C- and Ku-bands. However, GE Americom will carefully consider any reasonable proposal for sharing made in this proceeding.

The Commission Should Not Discuss Ka-Band Sharing at WRC-95 Without Developing a Domestic Solution

Placing the issue of sharing in the 20 - 30 GHz band into the agenda of WRC-95 would be premature, since the Commission has under active consideration the feasibility of sharing the FSS 27.5 - 29.5 Ka-band with MSS and terrestrial operators.[5]

GE Americom believes that the negotiated rulemaking being considered by the Commission should be given a fair opportunity to recommend whether, and, if appropriate, in what manner increased sharing of the FSS Ka-band is possible without harmful interference. To place on the WRC-95 agenda the operation of MSS feeder links within this band before the Commission has fully evaluated sharing concepts would be premature and would prejudge the current proceedings, which have the greatest potential of developing a workable plan for Ka-band sharing.

Therefore, GE Americom requests that the response to the

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[5] See n. 3, supra.

development of the WRC-95 agenda should be that sharing of C and Ku-band frequencies by FSS satellites is not operationally feasible and that the question of sharing the Ka-band frequencies should be deferred pending the conclusion of its study of that question.

Respectfully submitted,

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